

### ABSTRACT OF THE DISCLOSURE

A mechanical prosthetic heart valve with a pyrolytic carbon valve body having re-enforcing fibers in the valve body. The fibers may be short segments of graphite wire or continuous fibers may be wrapped around the valve body. The fiber may be  
5 arranged in loops and formed in repeating patterns around the valve body. Also, methods for making a prosthetic heart valve body having a first layer of pyrolytic carbon that is substantially free from fiber, a second layer comprised of fibers encased in pyrolytic carbon, and a third layer that is substantially free from fiber. The method  
10 may comprise placing a mandrel in a fluidized bed, coating the mandrel with a first layer of pyrolytic carbon, introducing a fiber, coating the mandrel and the fiber with a second layer of pyrolytic carbon, and coating the mandrel with a third layer of pyrolytic carbon.

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